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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,828	03/26/2004	Masayuki Morita	740250-890	7960
22204	7590	06/01/2005	EXAMINER	
NIXON PEABODY, LLP 401 9TH STREET, NW SUITE 900 WASHINGTON, DC 20004-2128			STOCKTON, LAURA	
			ART UNIT	PAPER NUMBER
			1626	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,828

Applicant(s)

MORITA ET AL.

Examiner

Laura L. Stockton, Ph.D.

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

408

Art Unit: 1626

DETAILED ACTION

Claims 1-6 are pending in the application.

Rejections made in the previous Office Action that do not appear below have been overcome. Therefore, arguments pertaining to these rejections will not be addressed.

The showing in the specification on pages 13-14 had been considered previously. However, the showing is not persuasive since the prior art used in the "Comparative Example" was not identified and the closest prior art was not compared.

Art Unit: 1626

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. {U.S. Pat. 3,849,430}, Bayer et al. {U.S. Pat. 5,420,290}, Hahn et al. {U.S. Pat. 5,453,507}, Yen et al. {U.S. Pat. 5,290,512}, Lewis et al. {U.S. Pat. 3,523,121} and Jordan {DE 3702546}, each taken alone and in combination with each other when similar utilities are asserted.

Determination of the scope and content of the prior art (MPEP §2141.01)

Applicants claim 2-alkyl-4-isothiazoline-3-one products. Lewis et al. (column 1, lines 14-54; column

Art Unit: 1626

3, lines 61-75; column 4, lines 6-18; Table I in column 5; and especially Example 2 in column 5), Bayer et al. (column 1, lines 19-52; and especially the compound in column 15, lines 49-50), Hahn et al. (column 1, lines 11-27; and Example 19 in column 9), Yen et al. (column 2; and especially Example II in column 3), Lewis et al. (column 1; column 9, lines 65-75; and especially Example 45 in columns 7 and 8) and Jordan (page 2; and especially the first compound on page 4, lines 1-9) each teach 2-alkyl-4-isothiazoline-3-one products that are structurally similar to the instant claimed compounds.

Ascertainment of the difference between the prior art and the claims

(MPEP §2141.02)

The difference between the products of the prior art and the products instantly claimed is that the amount of 5-chloro-2-alkyl-4-isothiazoline-3-one present in the compositions.

*Finding of prima facie obviousness--rational and motivation (MPEP
§2142-2413)*

Changing the form, purity or other characteristic of an old product does not render the novel form patentable where the difference in form, purity or characteristic was inherent in or rendered obvious by the prior art. _ In re Cofer, 148 U.S.P.Q. 268 (CCPA 1966). The motivation to make the claimed products derives from the expectation that structurally similar products would possess similar activity (e.g., a disinfectant).

One skilled in the art would thus be motivated to prepare products embraced by the prior art but improve on the purity of the active ingredient, 2-alkyl-4-isothiazoline-3-one, to arrive at the instant claimed products with the expectation of obtaining additional beneficial products which would be useful as a disinfectant. Therefore, absent a showing of unobvious and superior properties, the instant claimed

Art Unit: 1626

composition would have been suggested and obvious to one skilled in the art.

Response to Arguments

Applicants' arguments filed February 17, 2005 have been fully considered. Applicants argue that: (1) none of the references, taken alone, or in combination disclose the instant claimed composition having less than 0.1% of the contaminant, 5-chloro-2-alkyl-4-isothiazoline-3-one; and (2) there are distinct and unexpected benefits achieved by limiting the formation of the contaminant.

All of Applicants' arguments have been considered but have not been found persuasive. Applicants are claiming an industrial disinfectant composition comprising 2-alkyl-4-isothiazoline-3-one having less than 0.1% of the contaminant, 5-chloro-2-alkyl-4-isothiazoline-3-one. "Even though product-by-process claims are limited by and defined by the process,

Art Unit: 1626

determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Also see M.P.E.P. 2113.

The use of 2-alkyl-4-isothiazoline-3-one in industrial biocidal compositions is known in the prior art. See Lewis et al. '340 {column 1, lines 17-19}, Bayer et al. {column 1, lines 19-24 and 39-52}, Hahn et al. {column 1, lines 11-26}, Yen et al. {column 1, lines 6-12 and 24-31}, Lewis et al. '121 {column 1, lines 15-23} and Jordan {page 3, lines 31-52}.

Additionally, Applicants have not provided persuasive support in a side-by-side showing that the instant claimed composition, having less than 0.1% of the contaminant, 5-chloro-2-alkyl-4-isothiazoline-3-

Art Unit: 1626

one, has unexpected, superior and beneficial results over the compositions taught in the prior art.

Therefore, the rejection is maintained.

Conclusion

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed,

Art Unit: 1626

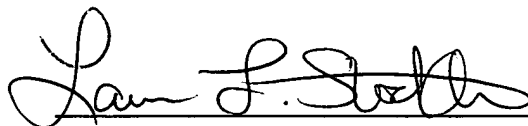
and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura L. Stockton whose telephone number is (571) 272-0710. The examiner can normally be reached on Monday-Friday from 6:15 am to 2:45 pm. If the examiner is out of the Office, the examiner's supervisor, Joseph McKane, can be reached on (571) 272-0699.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1626

The Official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

A handwritten signature in black ink, appearing to read "Laura L. Stockton", written over a horizontal line.

Laura L. Stockton, Ph.D.

Patent Examiner

Art Unit 1626, Group 1620

Technology Center 1600

May 27, 2005